

REMARKS

The Office Action mailed August 1, 2005, has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1-9, 12, 14-16, 18-22, 24, and 27-33 are pending in this application. Claims 1-9, 12-16, 18-22, 24, and 27-33 stand rejected. Claims 10, 11, 17, 23, 25, and 26 have been withdrawn. Claim 13 has been canceled.

The rejection of Claims 1-9, 24, and 27-33 under 35 U.S.C. § 112 is respectfully traversed. Specifically, independent Claim 1 has been amended to remove reference to “the base layer”, and independent Claim 24 has been amended to remove reference to “the sealing layer”. Claims 2-9 depend from independent Claim 1, and Claims 27-33 depend from independent Claim 24. Accordingly, for at least the reasons set forth above, Applicants respectfully request the Section 112 rejections of Claims 1-9, 24, and 27-33 be withdrawn.

The rejection of Claims 1-9, 12-16, 18-22, 24, and 27-33 under 35 U.S.C. § 103 as being unpatentable over Pekar (U.S. Pat. No. 5,638,565) in view of Evans (U.S. Pat. No. 4,864,671) is respectfully traversed.

Pekar describe an inflatable multi-layer body support cushion (10) fabricated from a plurality of layers 11 and 13. Each layer is formed from two thermoplastic sheets 40' and 42' that are sealed such that vertically-oriented cells (12) are defined. In the exemplary embodiment, cells (12) are hourglass shaped and each includes upper and lower chamber portions 14 and 14'. The upper chamber portions (14) are coupled together in flow communication by conduits (20) that extend through layer 11 between unsealed portions of sheets 40 and 42. The lower chamber portions (14') are coupled together in flow communication by conduits 20'. At least some of the upper and lower chambers (14 and 14') are coupled together in flow communication by a plurality of slits (22) formed in the neck portions (83) of at least some cells (12). Notably, at column 4, lines 1-5, Pekar describes that “[i]t is an important feature of this invention that there be a substantial differential in the horizontal volumetric flow rate of fluid through the conduits 20 and 20', on the one hand, and the vertical flow rate of the fluid through the orifices or slits 22. In other words, the overall intralayer fluid flow rate and the overall interlayer flow rates are substantially different.”

Moreover, at Column 4, lines 62-67, Pekar describes that “each of conduits 20 and 20’ has a predetermined diameter to provide control of the fluid transfer to and from adjacent upper chambers 14 and lower chambers 14’ of the cells . . . to thereby control the rates of fluid flow between each of the cells 12 of the cushion.

Evans describes an inflatable cushion (12) that is coupled to a pump (14), a plurality of valves (16) connected to the pump (14), and microprocessor control means (18) that is coupled to the pump (14), the valves (16), and to a power supply (20). The cushion (12) includes a plurality of rows (28) or zones (29) of independently inflatable cells (30). A passageway (28) extends between cells (30) in each zone (29) such that cells (30) in that particular zone (29) may be inflated with a single source of air. Inflation of each zone (29) of cells (30) is controlled by independent pressurization conduits (40). At column 4, lines 25-35, Evans recites:

[c]ells 30 are **attached** in sealing relationship to a bottom sheet 36, which is also preferably made of flexible rubber or polymeric material, to form a web 37 supporting cells 30. Manufacture of cushion 12 may be accomplished by molding a first member from rubber or polymeric material which forms the cells 30. Cells 30 can be injected molded, blow molded, molded with a male mold form or otherwise formed. They can then be glued, heat bonded or otherwise formed. **They can then be glued, heat bonded, or otherwise attached to sheet 36 to form the structure shown in FIG 1b.**

(emphasis added). Moreover, at column 4, lines 35-37, Evans recites that “[s]uch construction is conventional; one type of method is described in the patents to Graebe mentioned above.” As such, Evans does not describe nor suggest forming a base layer unitarily with a plurality of cells that extend outward from the base layer via an injection molding process. Rather, as recited above, Evans merely describes a conventional fabrication method in which a plurality of cells, which may be formed via injection molding, are attached to a separate bottom sheet.

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, the mere assertion that it would have

been obvious to one of ordinary skill in the art to use an injection molding process, as taught by Evans, in the method of Pekar in order to facilitate the formation of cells does not support a prima facie obvious rejection. Rather, each allegation of what would have been an obvious matter of design choice must always be supported by citation to some reference work recognized as standard in the pertinent art and the Applicant given the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference. Applicant has not been provided with the citation to any reference supporting the combination made in the rejection. Specifically, neither Pekar nor Evans, considered alone or in combination, describes or suggests forming, via an injection molding process, a cushion first layer that is formed unitarily with a plurality of hollow cells that extend outward from the first layer and that are each coupled together in flow communication. The rejection, therefore, fails to provide the Applicant with a fair opportunity to respond to the rejection, and fails to provide the Applicant with the opportunity to challenge the correctness of the rejection.

Moreover, obviousness cannot be established by merely suggesting that it would have been an obvious to one of ordinary skill in the art to modify Pekar in view of Evans. As explained by the Federal Circuit, “to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the Applicant.” In re Kotzab, 54 USPQ2d 1308, 1316 (Fed. Cir. 2000). MPEP 2143.01.

Furthermore, as is well established, the mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See In re Gordon, 221 U.S.P.Q.2d 1125 (Fed. Cir. 1984). Furthermore, the Federal Circuit has determined that:

[i]t is impermissible to use the claimed invention as an instruction manual or “template” to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.”

In re Fitch, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). Further, under Section 103, “it is impermissible . . . to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.” In re Wesslau, 147 USPQ 391, 393 (CCPA 1965). Rather, there must be some suggestion, outside of Applicants’ disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicant’s disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion nor motivation to combine the cited art, nor any reasonable expectation of success has been shown.

Accordingly, since there is no teaching nor suggestion in the cited art for the claimed combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejection of Claims 1-9, 12-16, 18-22, 24, and 27-33 be withdrawn.

Moreover, if art “teaches away” from a claimed invention, such a teaching supports the nonobviousness of the invention. U.S. v. Adams, 148 USPQ 479 (1966); Gillette Co. v. S.C. Johnson & Son, Inc., 16 USPQ2d 1923, 1927 (Fed. Cir. 1990). In light of this standard, it is respectfully submitted that the cited art, as a whole, is not suggestive of the presently claimed invention. Specifically, Applicant respectfully submits that no combination of Pekar and Evans describes or suggests forming, via an injection molding process, a cushion first layer that is formed unitarily with a plurality of hollow cells that extend outward from the first layer and that are each coupled together in flow communication. As such, the presently pending claims are patentably distinguishable from the cited combination.

In addition, no combination of Pekar and Evans describes nor suggests the claimed combination. Specifically, Claim 1 recites a method of fabricating a cellular cushion, wherein the method comprises “injecting material into a mold in an injection molding process to form a cushion first layer that is formed unitarily with a plurality of hollow cells that

extend outward from the first layer and are each coupled together in flow communication . . .
.”

As described above, no combination of Pekar and Evans describes nor suggests a method of fabricating a cellular cushion as is recited in Claim 1. Specifically, no combination of Pekar and Evans describes nor suggests injecting material into a mold in an injection molding process to form a cushion first layer that is formed unitarily with a plurality of hollow cells that extend outward from the first layer and are each coupled together in flow communication. Rather, in contrast to the present invention, Pekar describes a cellular cushion that includes a plurality of layers that are stacked together and then bonded, and Evans describes a conventional fabrication method in which a plurality of cells, which may be formed via injection molding, are attached to a separate bottom sheet. Accordingly, for at least the reasons set forth above, Applicant submits that Claim 1 is patentable over Pekar in view of Evans.

Claims 2-9 depend from independent Claim 1. When the recitations of Claims 2-9 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 2-9 likewise are patentable over Pekar in view of Evans.

Claim 12 recites a method for fabricating a flexible cushion, wherein the method comprises forming a plurality of hollow cells with an injection molding process . . . coupling the plurality of cells to a flexible base . . . coupling a sealing layer to the flexible base such that the plurality of hollow cells are coupled together in flow communication with each other via a plurality of hollow channels and such that a plurality of fluid control devices defined by at least one of the base and the sealing layer extend between adjacent hollow cells.

No combination of Pekar and Evans describes nor suggests a method of fabricating a flexible cushion as is recited in Claim 12. Specifically, no combination of Pekar and Evans describes nor suggests forming a plurality of hollow cells with an injection molding process in combination with coupling a sealing layer to the flexible base such that the plurality of hollow cells are coupled together in flow communication with each other via a plurality of hollow channels and such that a plurality of fluid control devices defined by at least

one of the base and the sealing layer extend between adjacent hollow cells. Rather, in contrast to the present invention, Pekar describes a cellular cushion wherein the conduits between adjacent cushion cells are sized with a predetermined diameter that controls the fluid flow rate between the cells of the cushion, and Evans describes using a plurality of pressurization conduits that extend outward from the cushion and are coupled to a remote microprocessor to control to control the fluid flow rate between zones of cells. Accordingly, for at least the reasons set forth above, Applicant submits that Claim 12 is patentable over Pekar in view of Evans.

Claim 13 has been canceled. Claims 14-16 and 18-22 depend from independent Claim 13. When the recitations of Claims 14-16 and 18-22 are considered in combination with the recitations of Claim 13, Applicant submits that dependent Claims 14-16 and 18-22 likewise are patentable over Pekar in view of Evans.

Claim 24 recites a method for fabricating an inflatable cushion, wherein the method comprises “forming a flexible base using an injection molding process such that a plurality of hollow cells formed integrally with the base each extend outwardly from the base and are coupled together in flow communication”

As described above, no combination of Pekar and Evans describes nor suggests a method of fabricating a cellular cushion as is recited in Claim 24. Specifically, no combination of Pekar and Evans describes nor suggests forming a flexible base using an injection molding process such that a plurality of hollow cells formed integrally with the base each extend outwardly from the base and are coupled together in flow communication. Rather, in contrast to the present invention, Pekar describes a cellular cushion that includes a plurality of layers that are stacked together and then bonded, and Evans describes a conventional fabrication method in which a plurality of cells, which may be formed via injection molding, are attached to a separate bottom sheet. Accordingly, for at least the reasons set forth above, Applicant submits that Claim 24 is patentable over Pekar in view of Evans.

Claims 27-33 depend from independent Claim 24. When the recitations of Claims 27-33 are considered in combination with the recitations of Claim 24, Applicant submits that dependent Claims 27-33 likewise are patentable over Pekar in view of Evans.

Accordingly, for at least the reasons set forth above, Applicant respectfully requests the Section 103 rejection of Claims 1-9, 12-16, 18-22, 24, and 27-33 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited

Respectfully Submitted,

A handwritten signature in black ink, appearing to be 'R. B. Reeser III', written over a horizontal line.

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